

CUSTOMER NO.: 24498

Serial No. 09/916,903

Reply to Final Office Action dated: 5/05/06

Response dated: 7/17/06

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JUL 17 2006

**PATENT
PU010152**

REMARKS

In the Final Office Action, the Examiner noted that claims 1-17 are pending in the application and that claims 1-17 stand rejected. No claims are amended by this response.

In view of the following discussion, the Applicant respectfully submits that none of the claims are rendered obvious under the provisions of 35 U.S.C. § 103. Thus the Applicant believes that all of these claims and the application are now in allowable form.

Objections

A. Drawings

The Examiner objected to the Applicant's Figure 2 as including a reference character "220" not mentioned in the description.

In response, the Applicant has herein amended the Specification to include mention to reference character "220" in the description. Having done so, the Applicant submits that the basis for the Examiner's objection to FIG. 2 has been removed and respectfully requests that the Examiner's objection to Figure 2 be withdrawn.

B. Specification

The Examiner objected to the Applicant's disclosure because reference to "encoder 114" should refer to "encoder 116" to be consistent with the figures.

In response, the Applicant has herein amended the Specification to include mention to "encoder 116" in the description and to delete mention of "encoder 114". Having done so, the Applicant submits that the basis for the Examiner's objection to the Applicant's disclosure has been removed and respectfully requests that the Examiner's objection to the Applicant's disclosure be withdrawn.

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PU010152****Rejections****A. 35 U.S.C. § 103**

The Examiner rejected claims 1-17 under 35 U.S.C. § 103(a) as being unpatentable over Elenbaas et al. (U.S. Pub. No. 2005/0028194, hereinafter "Elenbaas") in view of Barton (U.S. Patent No. 6,233,389). The rejection is respectfully traversed.

The Examiner cites Elenbaas for teaching all of the aspects of the Applicant's invention except for the encoding step. That is, the Examiner concedes that Elenbaas fails to teach, suggest or make obvious "encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1. The Examiner, however, cites Barton for teaching the encoding step of the Applicant's invention. The Applicant respectfully disagrees.

The Applicant would like to respectfully point out to the Examiner that the Elenbaas reference is an improper 103(a) reference. That is, 35 U.S.C. § 103 indicates that (a) - A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The Applicant respectfully submits that the subject matter sought to be patented and the prior art are such that the subject matter as a whole would not have been obvious at the time the invention was made to a person having ordinary skill in the art because at the time the invention of the Applicant was made, the Elenbaas reference had not yet been published or even filed. As such, the Elenbaas reference can not be properly applied as a prior art reference against the Applicant's present application under 35 U.S.C. § 103(a).

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More specifically, the above identified U.S. patent application has an effective priority date for purposes of prior art of July 27, 2001. Because the filing date of the Elenbaas reference is September 02, 2004 and the publication date of the Elenbaas reference is February 03, 2005, the Applicant respectfully submits that the Elenbaas reference can not be applied as a proper 103(a) reference under the provisions of 35 U.S.C. § 103.

In addition, the Applicant submits that the teachings of Barton alone, also fail to teach, suggest or make obvious the invention of the Applicant, at least with regards to independent claim 1. That is, the teachings of Barton for a multimedia time warping system, which allows a user to store selected television broadcast programs while simultaneously watching or reviewing another program, fail to teach, suggest or make obvious at least a method of creating a subset of channels with programming from a plurality of channels including at least "encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels" and "processing at least one of the corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming to provide the subset of channels with programming" and "storing the subset of channels into memory" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1.

More specifically, the Applicant's claim 1 specifically recites:

"A method of creating a subset of channels with programming from a plurality of channels, comprising the steps of:
 receiving a plurality of channels, wherein the plurality of channels comprises at least one channel with programming;
encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels;
processing at least one of the corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming to provide the subset of channels with programming; and
storing the subset of channels into memory." (emphasis added).

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The Applicant's claim 1 finds support throughout the specification. More specifically, Claim 1 is directed to a method of creating a subset of channels with programming from a plurality of channels including encoding at least a portion of a predetermined number of received channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels and processing each of the corresponding encoded intra and/or non-intra pictures to determine which of the predetermined number of channels contain programming to provide the subset of channels with programming. More specifically, in support of claim 1, the Applicants in the Specification specifically recite:

"Specifically, a plurality of channels can be received in which one or more of these channels contain actual programming. A portion of a predetermined number of these channels can be encoded into intra and/or non-intra pictures, and these intra and non-intra pictures can then be processed to determine which of these predetermined number of channels contain programming for purposes of providing a program channel subset. This program channel subset can then be stored into memory thereby permitting a display device to display only the channels that contain programming." (See Specification, page 8, lines 10-17).

And

"In one arrangement, the encoding step can be performed by encoding a portion of each of the predetermined number of channels into MPEG formatted pictures such as intra (I) pictures or non-intra (non-I) pictures. Non-I pictures can include predictive (P) or bi-directional predictive (B) pictures. The encoded signals can contain any number of I or non-I pictures. In fact, the encoded signal can be limited to merely a single I picture, a single I picture and a single non-I picture or a single non-I picture such as a P picture that contains a number of I macroblocks. As will be explained below, however, the accuracy of the invention may improve as the number of encoded pictures increases for each of the encoded signals.

At step 214, each of the encoded signals can be processed to determine which of the predetermined number of channels contains programming. Once the channels that contain programming are distinguished from those that do not, a subset of channels with programming can be created. In one arrangement, the pictures that were created from the encoding step can be processed to determine whether the particular channel from which they were encoded contains programming.

As an example, if a particular encoded signal contains one or more non-I pictures, then the number of bits in one or more of these non-I pictures can be counted. If the number of bits is lower than a typical non-I picture, for example, 20% lower than typical non-I picture, then there is a

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good possibility that the encoded signal is a DBS signal that carries no programming. This determination can be made because the non-I pictures from these types of signals contain very little encoded information, as the signal display almost never varies. It should be noted, however, that the invention is not limited to the particular example discussed above, as other thresholds can be used to determine whether a non-I picture is from a non-programming channel." (See Specification, page 9, line 6 through page 10, line 8).

As evident from at least the portions of the Applicant's disclosure presented above, in the invention of the Applicant, encoded intra and/or non-intra pictures are processed to determine which of a predetermined number of channels contain programming to provide a subset of channels with programming.

To further support and describe various embodiments of the processing of the intra and/or non-intra pictures of the Applicant's invention, the Applicant in the Specification specifically further recites:

"In another arrangement, the motion vectors in one or more non-intra pictures in the encoded signals can be analyzed to determine whether a particular signal contains a still video pattern. If all the motion vectors have a value of zero or substantially close to zero, then there is a good chance that the non-I pictures from which they are measured are from a signal carrying a still video pattern. To improve the accuracy of the invention, a greater number of these non-I pictures can be checked in accordance with the examples listed above. It should be noted, however, that the invention is not limited to the above examples, as any other suitable means of processing non-I pictures can be used to determine which of the plurality of channels contains programming.

In another arrangement, one or more I pictures in each encoded signal can be processed for purposes of eliminating the signals containing still video patterns. Specifically, the discrete cosine transform (DCT) coefficients in each I picture can be examined; notably, if the DCT alternating current (ac) coefficients are zero or substantially zero in a large number of the macroblocks in a particular I picture, then there is a good possibility that that I picture is from an encoded signal carrying a still video pattern. In another arrangement, information relating to the DCT-ac coefficient values for each macroblock contained in a sample picture from one or more of the non-programming channels can be stored in memory. Subsequently, the DCT-ac coefficients of all or a portion of the macroblocks contained in an I picture being analyzed can then be compared to the sample picture DCT-ac information stored in memory. If there is a correlation between the DCT-ac coefficients of the macroblocks contained in the I picture being analyzed and the DCT-ac coefficients of the macroblocks contained in the sample picture from the particular channel

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being examined, then there is a good chance that the I picture is from a non-programming channel. In another arrangement, a sample picture can be retrieved from one or more of the non-programming channels and other relevant information from these sample pictures can be stored in memory. As an example, the number of bits in each of these sample pictures can be counted and stored in memory. Subsequently, the number of bits from the I pictures being analyzed can be counted and then compared to the number of bits contained in a corresponding sample picture (a corresponding sample picture is a sample picture that has been retrieved from the particular channel from which the I pictures being analyzed originate). If the number of bits in a specific I picture are within a predetermined threshold - for example, within twenty percent of the number of bits contained in the sample picture - then there is a good chance that the I picture is from a channel containing no programming. It should be noted that the invention is not limited to this particular example, as any other suitable threshold can be used to help determine whether an I picture is from a non-programming channel. (See Specification, page 10, line 9 through page 11, line 23).

The Applicant respectfully submits that there is absolutely no teaching, suggestion or disclosure in Barton for "encoding at least a portion of a predetermined number of channels from the plurality of channels to provide corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels" and "processing at least one of the corresponding encoded intra and/or non-intra pictures for each of the predetermined number of channels to determine which of the predetermined number of channels contain programming to provide the subset of channels with programming" and "storing the subset of channels into memory" as taught in the Applicant's Specification and claimed by at least the Applicant's claim 1.

Therefore, the Applicant submits that for at least the reasons recited above independent claim 1 is not rendered obvious under the provisions of 35 U.S.C. § 103(a) by the teachings of Elenbaas and Barton, alone or in any allowable combination, and, as such, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder.

Likewise independent claims 8, 10 and 16 recite similar relevant features and have the same priority date as the Applicant's independent claim 1. As such, the Applicant respectfully submits that independent claims 8, 10 and 16 are also not rendered obvious under the provisions of 35 U.S.C. § 103(a) by the teachings

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of Elenbaas and Barton, alone or in any allowable combination, and, as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

Furthermore, the Applicant submits that for at least the reasons recited above with respect to independent claims 1, 8, 10 and 16, dependent claims 2- 7, 9, 11-15 and 17, which depend either directly or indirectly from independent claims 1, 8, 10 and 16 and recite additional features therefore and have the same effective filing date, are also not rendered obvious under the provisions of 35 U.S.C. § 103(a) by the teachings of Elenbaas and Barton, alone or in any allowable combination, and, as such, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

The Applicant reserves the right to establish the patentability of each of the claims individually in subsequent prosecution.

Applicant's Note

The Applicant is herein submitting that the Elenbaas reference is an improper 35 U.S.C. § 103 reference because the publication date and even the filing date of Elenbaas fail to pre-date at least the earliest priority date (e.g., the filing date) of the Applicant's above identified patent application.

As such, the Applicant respectfully submits that the present Final Office Action be withdrawn and that the above identified patent application be allowed.

Conclusion

The Applicant respectfully submits that none of the claims, presently in the application, are rendered obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion, it is respectfully requested that the Examiner telephone the undersigned.

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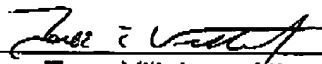
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No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account No. 07-0832.

Respectfully submitted,

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